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EXAMINER

NGUYEN, KEVIN M

ART UNIT PAPER NUMBER

2629

DATE MAILED: 10/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/716,535	Applicant(s) ROUX, NICOLAS	
	Examiner Kevin M. Nguyen	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☒ Certified copies of the priority documents have been received in Application No. 10/062,671.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. <u>10/05/2006</u> . |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____. | 6) <input type="checkbox"/> Other: _____. |

Supplemental Action

1. This office action is responsive to the interview summary filed 10/5/2006 that new claims 31 and 32 are considered below.

Claim Objections

2. Applicant is advised that should claim 31 be found allowable, claim 32 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Response to Arguments

3. Responses to applicant's argument filed on 05/23/2006 with respect to 35 U.S.C. §112, second paragraph, and objection of claims 1 and 12 have been considered, and are persuasive. Said rejection and objection of claims 1 and 12 are withdrawn. Response to applicant's argument filed on 05/23/2006 in view previously cited prior arts and the objection of drawing have been considered, and are not persuasive. Said rejection and objection are maintained.

Terminal Disclaimer

4. The terminal disclaimer filed on 05/23/2006 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of

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10/716,483 (has been examined) and 10/062,671 (has been allowed) has been reviewed and is accepted. The terminal disclaimer has been recorded.

Drawings

5. The drawings (figure 1) are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: a dialog device 1, a computer 3, left window screens E1 to E3 for pilot, right window screens E6 to E8 for copilot, a left cursor control device 5, a right cursor control device 5, a left auxiliary control device 8, a right auxiliary control device 8, at pages 8 and 9. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 12, 4, 5, 15, 16, 31 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US 6,784,869) in view of Briffe et al (IDS cited, US 6,112,141).

7. As to claims 1 and 12, Clark et al teaches a dialog system for dialog between an operator of an aircraft and at least one system of the aircraft, comprising:

a display configured to display at least one window including a plurality of responsive objects respectively associated with one of multiple functions of the at least one system of the aircraft [at least one display window 206 (fig. 2) includes a plurality of objects associated with one of multiple functions 210, see fig. 2, col. 6, lines 60-64];

a cursor control device including a cursor moving mechanism configured to move a cursor on the display so as to designate a responsive object such that when a cursor is one the responsive object, a main object marker appears and designates the responsive object [a cursor control device (CCD) 212 (fig. 2) including a cursor moving mechanism. The cursor is placed on the desired menu item, see col. 5, lines 55-56. Thus, the cursor is placed on the desired menu item corresponds to a main object marker as claimed];

an auxiliary control device including a discrete moving mechanism configured to cause a discrete displacement of an auxiliary object marker on the display, responsive object by object [The switches 212a1, 212a2, and 212a3 (fig. 2A) corresponding to an auxiliary control device including a discrete moving mechanism, see col. 6, lines 24-28];

Accordingly, Clark et al teaches all of the claimed limitations, except for displacing an auxiliary object marker on the display object without affecting control of the main object marker.

However, Briffe et al teaches displacing an auxiliary object marker on the display object without affecting control of the main object marker [a display computer coupled to the display devices and the cursor control devices for generating a plurality of movable cursors upon the display devices, each cursor being controlled by one of the cursor control devices to move independent of all other cursors across all display devices of the entire work area, see claim 1, col. 43, lines 26-31].

It would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the movement of the first cursor and the second cursor on the display independently of each other corresponding to displacing an auxiliary object marker on the display object without affecting control of the main object marker as taught by Briffe et al in the Clark et al's aircraft input devices in order to achieve the benefit of intend to control the cursors, because this would provide an improved flight information and control system which permit simplified flight planning and navigation procedures, reduced cost, reduced pilot workload, and improved safety (see Briffe et al, col. 2, lines 60-64).

8. As to claims 4 and 15, Briffe et al teaches a QWERTY keyboard 34 for entering data and including the discrete keys (the upper, lower, left, and right cursor keys), see fig. 1, col. 5, lines 44-45.

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9. As to claims 5 and 16, Briffe et al teaches two menu pages display different areas, each devoted to one of the devices managed by Multi-function Control Units 26, 28, see col. 23, lines 47-49. The keyboard 34 includes the discrete keys, see fig. 1, col. 5, lines 44-45.

10. As to claims 31 and 32, the dialog system according to claim 1, wherein when the main object marker and the auxiliary object marker designate a same responsive object, the auxiliary marker disappears, *whereas Clark discloses "two cursors, left and right, are mutually exclusive –meaning that they cannot both be active on the same display. In the case where a first cursor is active on a display, and the second cursor is selected to that same display, the second cursor will "bump" or displace the first cursor from the display. The first cursor either moves to a default display or is not displayed until a display selection is made on the CCD controlling the first cursor" col. 6, lines 46-53. Accordingly, the second cursor corresponds the main object marker, the first cursor corresponds the main auxiliary marker, the same display corresponds to the same responsive object, and "the auxiliary marker disappears" corresponds to the first cursor is not displayed.*

11. Claims 1-3, 7-9, 11-14, 18-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al (US 6,784,869) in view of Ebert et al (newly cited, US 5,931,874).

12. As to claims 1 and 12, Clark et al teaches a dialog system for dialog between an operator of an aircraft and at least one system of the aircraft, comprising:

a display configured to display at least one window including a plurality of responsive objects respectively associated with one of multiple functions of the at least one system of the aircraft [at least one display window 206 (fig. 2) includes a plurality of objects associated with one of multiple functions 210, see fig. 2, col. 6, lines 60-64];

a cursor control device including a cursor moving mechanism configured to move a cursor on the display so as to designate a responsive object such that when a cursor is one the responsive object, a main object marker appears and designates the responsive object [a cursor control device (CCD) 212 (fig. 2) including a cursor moving mechanism. The cursor is placed on the desired menu item, see col. 5, lines 55-56. Thus, the cursor is placed on the desired menu item corresponds to a main object marker as claimed];

an auxiliary control device including a discrete moving mechanism configured to cause a discrete displacement of an auxiliary object marker on the display, responsive object by object [The switches 212a1, 212a2, and 212a3 (fig. 2A) corresponding to an auxiliary control device including a discrete moving mechanism, see col. 6, lines 24-28];

Accordingly, Clark et al teaches all of the claimed limitations, except for displacing an auxiliary object marker on the display object without affecting control of the main object marker.

However, Ebert et al teaches displacing an auxiliary object marker on the display object without affecting control of the main object marker [the video graphics generator being responsive to position signals provided by the input device for moving the first

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cursor and the second cursor on the display independently of each other, see col. 10, line 65 through col. 11, line 2].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the movement of the first cursor and the second cursor on the display independently of each other corresponding to displacing an auxiliary object marker on the display object without affecting control of the main object marker as taught by Ebert et al in the Clark et al's aircraft input devices in order to achieve the benefit of intend to control the cursors, because this would improve user friendly interface is desired which allows the pilot to keep his or her hand on the aircraft's control stick and eyes on the multifunction display while selecting commands, reduces the number of operations required by the pilot, reduces the number of functions that the pilot must memorize and allows faster response time (see Ebert et al, col. 2, lines 50-55).

13. As to claims 2, 7, 13 and 18, Clark et al teaches cursor control devices (CCDs) 212, 220 (see fig. 2) including a cursor moving mechanism and continuous manner. The cursor is placed on the desired menu item (see col. 5, lines 55-56) corresponding to a first activation mechanism. The switches 212a1, 212a2, and 212a3 (see fig. 2A) corresponding to an auxiliary control device defined a second activation mechanism.

14. As to claims 3 and 14, Clark et al teaches the switches 212a1, 212a2, and 212a3 (see fig. 2A) which are separate stand-alone unit.

15. As to claims 8, 9, 19 and 20, Clark et al teaches menu 314 would include selections (not shown) which when selected display a control panel or second menu

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(i.e., submenu) of options (not shown) that can be selected. However, with the interactive functions (e.g., CHKL, COMM, FUEL, Alpha Menu etc.), it is necessary to either press the menu select switch 308c, or move the cursor to an inactive area before pushing the CCD function select switch 308b to display the menu 310 or 314 (col. 8, lines 7-14).

16. As to claims 11 and 22, Clark et al teaches another set of the cursor control device and the auxiliary control device 220 (see fig. 2).

17. As to claims 24 and 28, Clark et al teaches the left and right multifunction CHKL, COMN, and NAV (col. 6, lines 63-64) are display in the window 210 (fig. 2). Thus, it would have obvious to provide CHKL, COMN, and NAV (the responsive objects) are arranged horizontally with respect to the window 210 as claimed.

18. As to claims 25 and 29, Clark et al teaches at least the switches 212a1 and 212a3 (fig. 2A). Thus, it would have been obvious to provide the left and the right cursor keys 212a1 and 212a3 that must comprises the horizontal direction as claimed.

19. Claims 6, 17, 26 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al in view of Ebert et al as applied to claims 1 and 12 above, and further in view of Yoshino et al (US 5,548,304).

20. As to claims 6 and 17, the combination of Clark et al and Ebert et al teaches all of the claimed limitations, except for the main object marker has priority over the auxiliary object marker."

However, Yoshino et al teaches a plurality of cursor control units A, B, C, D (see fig. 18a) including the function of priority access levels of both main cursor and auxiliary marker (see col. 12, lines 40-42).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to learn the teaching of Yoshino, e.g., controlling cursors including the functionality of priority access levels of the main cursor over auxiliary cursor for the combination of Clark et al and Ebert et al, because this would prevent the confusion and the damage to the image information due to mistakes by a plurality of operators of lower ranks (see Yoshino et al, col. 3, lines 12-20).

21. As to claims 26 and 30, Yoshino et al teaches in this priority case, the access acceptance levels of P1 will permit only the cursor under control of the instructor I so that the access acceptance level of page P1 is only that of the instructor's cursor or higher (col. 12, lines 47-51). Thus, it would have obvious to provide the instructor's cursor has priority over control of inherent auxiliary's cursor (student's cursor) are on the same window (the same screen 31, fig. 18b) as claimed.

22. Claims 10 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al in view of Ebert et al as applied to claims 1 and 12 above, and further in view of Oder et al (US 5,475,594).

The combination of Clark et al and Ebert et al teaches all of the claimed limitations, except for the key is activated during an emergency mode of the aircraft.

However, Oder et al teaches the key 39 which activates the emergency menu 52 (fig. 6, col. 9, lines 34-45).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the auxiliary control device including the key 39 which activates the emergency menu 52 as taught by Oder et al in the auxiliary control device of Clark et al and Ebert et al, because one skilled in the art would recognize that this would provide the operator to access certain functions directly by a single action (pushing down the corresponding function key). These characteristics are obviously particularly advantageous in critical situations, and are reserved for particular functions, e.g. functions which are implemented when an important element (engine, etc.) of the aircraft fails.

23. Claims 23 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Clark et al in view of Ebert et al as applied to claims 1 and 12 above, and further in view of Muller et al (IDS cited, US 6,072,473).

The combination of Clark et al and Ebert et al teaches all the claimed limitations, except for the use of an actuatable confirmation device configured to confirm the responsive object having the main object marker.

However, Muller et al teaches a related dialog device which includes validation of the required area once it has been marked by the cursor (col. 5, lines 4-5). Thus, the validation means corresponds to the actuatable confirmation device as claimed.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to implement the input device including validation means corresponding to the actuatable confirmation device as taught by Muller et al in the combination of Clark et al and Ebert et al, because this would provide the pilot must

then validate his choice by an action on the validating means (see Muller et al, col. 5, lines 28-29).

Response to Arguments

24. Applicant's arguments filed 05/23/2006 have been fully considered but they are not persuasive.

25. With respect to the objection of drawing [see remarks at page 11], the examiner respectfully disagrees as failing to comply with 37 CFR 1.84(p)(5) because they do not include all the labels listed in the specification corresponding to figure 1.

26. Applicant argues with respect to claims 1 and 12 recited "an auxiliary cursor discretely in the display from one responsive object to another responsive object" see remarks at pages 12 and 13. In response, the examiner respectfully disagrees. As stated *infra* with respect to claims 1 and 12, the examiner finds that Clark discloses "pressing a switch, 212a₁, 212a₂ or 212a₃, once would jump the cursor on display in the direction indicated. Holding the switch depressed would jump the cursor from display to display to display in the direction shown" see col. 6, lines 26-30. Accordingly, the feature "jump the cursor" corresponds to "moving cursor discretely" as claimed. As indicated the figure 4ⁱ given below, a first cursor corresponds to an auxiliary cursor, which moves discretely from one responsive object to another responsive object as recited claims 1 and 12 (see col. 5, lines 29-50 for further details of the explanation).

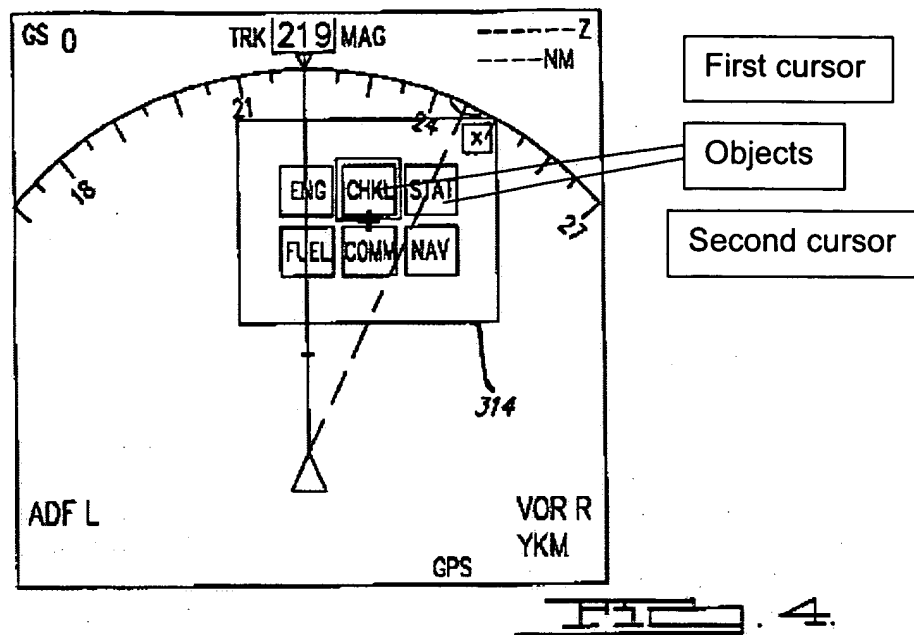


FIG. 4.

27. Applicant argues "if controls 212a1, 212a2, and 212a3 did move a second cursor discretely, responsive object by responsive object, there would be no way to move the first cursor from screen to screen" see remarks at page 13. In response, the examiner respectfully disagrees. As stated *infra* with respect to claims 1 and 12, the examiner finds that Clark teaches "the first and second cursors are allowed to operate on a display simultaneously" (see col. 6, lines 40-59 for further details of the operation of cursors).

28. With respect to remarks at page 13, "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification. In re Gordon, 733 F.2d 900, 221 USPQ 1125 (Fed. Cir. 1984)." In response, the examiner respectfully disagrees because this patent law related to the chemical experience which is nothing to be related to the currently computer input device's invention. In response, the

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examiner finds that “Whether an art is predictable or whether the proposed modification or combination of the prior art has a reasonable expectation of success is determined at the time the invention was made. Ex parte Erlich, 3 USPQ2d 1011 (Bd. Pat. App. & Inter. 1986).” The examiner also finds in this case at the time this invention was made, one of ordinary skill in the art would have been motivated to produce the claimed invention as recited in claims 1 and 12 using the combined apparatuses of Clark, Briffe, or Ebert with a reasonable expectation of success.” 3 USPQ2d at 1016 (emphasis in original).). See MPEP §2143.02.

29. Applicant argues “as none of Clark, Briffe, or Ebert teach or suggest “an auxiliary control device” as recited in claim 1” see remarks as page 13. In response, the examiner respectfully disagrees. As stated *infra* with respect to claims 1 and 12, the examiner indicates that Clark discloses “additional CCDs can be added as required for additional crewmembers or observers, which corresponds to an auxiliary control device which intend to discretely move the cursor (see col. 5, lines 22-50 for further details of the operation).

30. With respect to dependent claims [see remarks at pages 13-15], applicant argues the dependent claims 2-11 and 13-30 with the only emphasis of the recitation in the independent claims 1 and 12. In response, the examiner respectfully submits that the applicant's argument based on said dependent claims is not persuasive; therefore, the response is mooted said independent claims as explained in greater details above by teaching of Clark, Briffe, or Ebert that meets all those limitations with respect to said independent claims 1 and 12.

31. Applicant argues features in the amended claims 31 and 32 that are newly recited. Thus, new grounds of rejection have been moot.

For these reasons, the objection of drawing and rejection based on Clark, Briffe, and Ebert have been maintained.

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Conclusion

33. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN M. NGUYEN whose telephone number is 571-272-7697. The examiner can normally be reached on MON-THU from 9:00-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, a supervisor RICHARD A. HJERPE can be reached on 571-272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8000.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the Patent Application Information Retrieval system, see <http://portal.uspto.gov/external/portal/pair>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Kevin M. Nguyen
Patent Examiner
Art Unit 262929

KMN
October 16, 2006



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ⁱ It is respectfully submitted that in the case law stated "Drawing as a Reference", "Things clearly shown in reference patent drawing qualify as prior art features, even though unexplained by the specification". See *In re Mraz*, 173 USPQ 25 (CCPA 1972). "A claimed invention may be anticipated or rendered obvious by a drawing in a reference, whether the drawing disclosure by accidental or intentional. However, a drawing is only available as a reference for what it would teach one skilled in the art who did not have the benefit of applicant's disclosure". See *In re Meng*, 181 USPQ 94, 97 (CCPA 1974). "Absent of any written description in the reference specification of quantitative values, arguments based on measurement of a drawing are of little value in proving anticipation of a particular length". See *In re Wright*, 193 USPQ 332, 335 (CCPA 1977).